

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: Blue Grass Army Depot
Mailing Address: 2091 Kingston Hwy, Richmond, KY 40475-5060

Source Name: Blue Grass Chemical Agent-Destruction Pilot Plant
Mailing Address: 2091 Kingston Hwy, Richmond, KY 40475-5060

Source Location: Route 120, Richmond, KY 40475

Permit Number: V-05-034
Source A. I. #: 2805
Activity #: APE20040006
Review Type: Operating / Construction
Source ID #: 21-151-00013

Regional Office: Frankfort Regional Office
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County: Madison

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**John S. Lyons, Director
Division for Air Quality**

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and received a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Blue Grass Army Depot, AFS # 21-151-00013, Permit # V-05-020 and Blue Grass Chemical Agent - Destruction Pilot Plant, AFS # 21-151-00013, Permit # V-05-034, are considered by the Kentucky Division for Air Quality and US EPA Region IV to be one source as defined in 401 KAR 51:017, Prevention of Significant Deterioration (PSD) of air quality and subject to 401 KAR 52:020, Title V Permits. Each is responsible and liable for their own violations unless there is a joint cause for the violations.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit CD01, Munitions Demilitarization Building (MDB)

Description:

ID No.	Unit
01	<u>Rocket Shear Machine</u> : water jet pump & spare, (2) rocket shear machines, (2) drained agent surge drums, (2) agent washout surge drums, (2) drained agent pumps, (2) agent washout pumps, (2) common spare pumps and (2) rocket handling robots.
02	<u>Projectile Demilitarization</u> : projectile mortar disassembly machine, projectile transfer robot, and rocket handling robot.
03	<u>Nose Closure Removal System</u> : nose closure removal station and projectile transfer robot.
04	<u>Munitions Washout System</u> : projectile transfer robot, weigh scale, (3) cavity access machines – (2) operating and (1) standby, washout water storage tank, washout water storage tank heater, water jet pump and spare, agent washout surge drum, drained agent surge drum, agent washout pump, drained agent pump and common spare pump.
05	<u>Agent Collection/Toxic Storage</u> : agent settling tank, wash water agent pump & spare, agent concentrate pump & spare, agent concentrate holding tank agitator & agent sampling system, agent concentrate feed pump & spare, agent holding tank & agent sampling system, agent surge tank, agent feed pump & spare.
06	<u>Agent Neutralization</u> : agent hydrolyzer recirculation (2) pumps & (2) spares, (2) agent hydrolyzer heat exchangers, (2) agent hydrolyzer agitators, (2) agent hydrolyzers, (2) agent hydrolyzer vent condensers, (3) agent hydrolysate sampling tank agitators, (3) agent hydrolysate sampling tanks & sampling system, agent hydrolysate (3) pumps & (3) spares.
07	<u>Spent Decontamination System</u> : category A sump pump, category B sump pump, category C sump pump, (3) spent decon holding tank agitators, (3) spent decon holding tanks equipped with carbon canisters & (3) agent sampling systems, and spent decon feed (2) pumps & (2) spares.
08	<u>Metal Parts Treatment</u> : (2) inlet airlock conveyors, (2) outlet air lock conveyors, metal parts treater, (2) steam superheaters, (2) effluent heaters and (2) cyclones.
09	<u>Metal Parts Treatment Condensate System</u> : (2) condensate holding tanks equipped with filters and agent sampling system, (2) condensate holding tank agitators, condensate feed pump & spare
10	<u>Energetics Batch Hydrolyzer (two trains – equipment per train)</u> : (8) secondary cooling loop pumps, caustic heater, (8) energetics batch hydrolyzers, hydrolysate collection tank, mechanical conveyor, hydrolysate transfer pump, (8) secondary cooling loop heat exchangers, parts lift, heated discharge conveyor, cooled discharge conveyor, heated discharge conveyor size reducer, screw conveyor, (8) condensate coolers, RSM robot, rail robot, (8) condensate tanks, (8) condensate pumps, intermediate transfer robot and rail robots.
11	<u>Energetics Neutralization (two trains – equipment per train)</u> : (3) heat exchangers, (3) reactor agitators, (3) energetics neutralization reactors and (3) pumps & (3) spares.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

<u>ID No.</u>	<u>Control Equipment</u>
01	<u>Metal Parts Treatment, Offgas Treatment:</u> (2) air heaters, (2) pre-catalytic treatment units, (2) CATOX units, venturi/scrubber tower, scrubber recirculation cooler, scrubber recirculation surge tank, venturi recirculation pump & spare, scrubber recirculation pump & spare, particulate filter & spare, blower & spare and air reheater.
02	<u>Energetics Batch Hydrolyzer/Energetics Neutralization Reactor Offgas Treatment:</u> (2) heated discharge conveyor (HDC) flue gas condensers, (2) HDC gas flue heaters, (2) HDC CATOX units, (2) HDC flue gas condensate pumps & (2) spares, (2) energetics batch hydrolyzer (EBH) venturis, (2) EBH scrubber Towers, (2) EBH blowers & (2) spares, (2) EBH scrubber recirculation coolers, (2) EBH offgas filters & (2) spares, (2) EBH scrubber recirculation surge tanks, (2) EBH scrubber recirculation pumps & (2) spares and (2) air reheaters.
03	<u>MDB HVAC Filter System:</u> (2) banks of (9) filter units, (16) operating and (2) standby. Each MDB HVAC filter unit consists of the following components: <ol style="list-style-type: none"> 1. One particulate prefilter 2. One high-efficiency particulate air (HEPA) filter 3. Six carbon filter banks in series 4. One final HEPA filter

MDB Operations: Maximum Quantity Input of Raw Materials

<u>Raw Materials</u>	<u>Maximum Quantity Input (lb/hour)</u>	<u>Type of Products</u>
Rockets	2,750	Liquid Waste (hydrolysate) Metal (MPT Residue) Rocket Parts (Heated Discharge Conveyor (HDC) Residue)
Projectiles	2,509	Liquid Waste (hydrolysate) Metal (MPT Residue)
Dunnage	336	Metal (MPT Residue)
Reagent	25,257	
Total	30,852	

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

401 KAR 63:020, Potentially Hazardous Matter and Toxic Substance Emissions, applies to the potentially hazardous matter and toxic substance emissions from affected facilities.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**1. Operating Limitations:**

- A. The usage rate of raw materials used in all affected facilities shall be limited so that the emission limitations set forth in item 2, below, are not exceeded.
- B. The General Population Limits (GPL) specified by the Centers for Disease Control and Prevention (CDC) for Blister Agent H/HD (Mustard), Lethal Nerve Agent VX and Lethal Nerve Agent GB shall not be exceeded at the BGAD property boundary.
- C. The concentration of toxic emissions at the Blue Grass Army Depot property boundary as determined by air dispersion modeling shall not exceed the most up to date health based standards recommended by the Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS).
- D. See Section D, Compliance Demonstration Method D.

2. Emission Limitations:

- A. Visible emissions shall not equal or exceed 20% opacity.
401 KAR 59:010, § 3(1)(a).
Compliance Demonstration Method: See **4. Monitoring Requirements**.
- B. Particulate emissions shall not equal or exceed the emission rate determined by the following equation:
$$E = 3.59(P)^{(0.62)}$$

Where,
E = Emission rate in pounds per hour.
P = Maximum process input weight rate (tons/hour) of rockets, projectiles, dunnage and reagent = 15.43.
401 KAR 59:010, § 3(2).
Compliance Demonstration Method: Compliance with 401 KAR 59:010, § 3(2) will be assumed when the MDB HVAC System is operational.
- C. The emission rate of any pollutant shall not be such that **Operating Limitation (B)** and **Operating Limitation (C)** are not met.
401 KAR 63:020: See Section D, Compliance Demonstration Method (D) for compliance requirements.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations (Continued):

- D. Source wide CO emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (A).
- E. Source wide NO_x emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (B).
- F. Source wide VOC emissions shall be less than or equal to 90.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (C).

3. Testing Requirements:

- A. Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 59:005, § 2(2) and 50:045, § 4.
- B. See Section I, Compliance Schedule.

4. Specific Monitoring Requirements:

See Section I, Compliance Schedule.

5. Specific Record Keeping Requirements:

- A. Monthly records of the total weight of rockets, projectiles, dunnage and reagent processed shall be maintained. See Section D.
- B. See Section I, Compliance Schedule.

6. Specific Reporting Requirements:

- A. The permittee shall submit an emissions calculations worksheet, which utilizes the most up to date emission factors. These worksheets shall be submitted as a hardcopy and shall serve as the method of determining compliance with the source wide limitations for CO, NO_x and VOC emissions (See Section F (6) for specific reporting dates).
- B. See Section I, Compliance Schedule

7. Specific Control Equipment Operating Conditions:

See Section I, Compliance Schedule.

8. Alternate Operating Scenarios:

Not Applicable

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units CD02 (PB1) and CD03 (PB2): Two Natural Gas/Oil Fired Indirect Heat Exchangers

Description:

Primary fuel:	Natural Gas
Secondary fuel:	Distillate Oil
Maximum Continuous Rating (fuel input):	34.5 MMBTU/hr, each
Construction Commenced:	TBD

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, New Indirect Heat Exchangers applicable to an emission unit with a capacity less than 250 MMBTU per hour and commenced on or after April 9, 1972.

Regulation 401 KAR 60:005, incorporating by reference Regulation 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units, for units less than or equal to 100 MMBTU/hour but greater than or equal to 10 MMBTU/hour commenced after June 9, 1989.

1. **Operating Limitations:** The heat input shall not exceed 34.5 MMBTU/hr each. The maximum total annual (consecutive twelve (12) month) distillate oil consumption shall not exceed 220,550 gallons/year for each unit to preclude the applicability of 401 KAR 51:017.

2. **Emission Limitations:**

A. Pursuant to Regulation 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.28 lb/MMBTU based on a three-hour-average. Compliance with the allowable particulate emission limitation while burning distillate oil may be demonstrated by calculating emissions using the following formula:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (Heating value of the distillate oil in MMBTU /10³ gal)].

B. Pursuant to Regulation 401 KAR 59:015, Section 4(2), and Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60.43c(c), Subpart Dc, visible emissions shall not exceed 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations (Continued):**

- C. Pursuant to Regulation 401 KAR 59:015, Section 5(1)(c), and Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60.42c(d), Subpart Dc, sulfur dioxide emissions shall not exceed 0.50 lb/MMBTU, or, as an alternative, the fuel shall not contain greater than 0.5 weight percent sulfur. Compliance with the allowable sulfur dioxide emission limitation while burning distillate oil may be demonstrated based on fuel supplier certification of sulfur content. Sulfur dioxide emissions while burning distillate oil may be determined by using the following formula:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the distillate oil in MMBTU /10³ gal)].

- D. The permittee may assure compliance with the PM, SO₂, and opacity standards while burning natural gas by the following compliance demonstration methods:

Compliance Demonstration Method:

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formula.

When combusting natural gas:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (the heating value of the natural gas used in MMBTU /10⁶ scf)].

Compliance Demonstration Method:

The permittee may assure compliance with the sulfur dioxide standard by calculating sulfur dioxide emissions using the following formula.

When combusting natural gas:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the natural gas used in MMBTU /10⁶ scf)].

Compliance Demonstration Method:

Each unit is considered to be in compliance with the opacity standards while burning natural gas.

- E. Source wide CO emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (A).
- F. Source wide NO_x emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (B).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations (Continued):

G. Source wide VOC emissions shall be less than or equal to 90.0 tons during any twelve (12) consecutive month period.

See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (C).

H. 401 KAR 63:020: See Section D, Compliance Demonstration Method (D), for emission limitations and compliance requirements.

3. Testing Requirements:

A. The permittee shall determine the opacity of emissions from the stack when combusting distillate oil using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division. An initial performance test as required by 40 CFR 60.45c(a)(8), Subpart Dc, shall be completed.

B. The permittee shall conduct a performance test for particulate emissions when combusting distillate oil if such usage exceeds sixty (60) days within any consecutive twelve (12) month period.

C. The permittee shall conduct an initial performance test for carbon monoxide emissions when combusting natural gas. This testing can be waived upon submittal of the manufacturer's guaranteed emission factors (for the actual installed equipment) within forty-five (45) days of the equipment installation.

D. See Section F (11), G (a)(17) and Section G(d).

4. Specific Monitoring Requirements:

A. The permittee shall monitor natural gas and distillate oil usage on a monthly basis.

B. The permittee shall monitor the heating value and sulfur content of the distillate oil combusted. The permittee may use the certification from the fuel supplier to satisfy this requirement. The fuel supplier certification shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil specified in the 40 CFR 60.41c.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- A. For the purposes of precluding applicability of 401 KAR 51:017 and to satisfy Section D (3), a twelve-month rolling sum of carbon monoxide emissions (TMCE) shall be kept for these units for use in tracking CO due to combustion, i.e.

$$TMCE = \sum_{m=1}^{12} CO_{mNG} + \sum_{m=1}^{12} CO_{mDO}$$

Where TMCE = Summation of CO emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

CO_{mNG} = CO emitted for the month due to natural gas use

CO_{mDO} = CO emitted for the month due to distillate oil use

CO emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

- B. For the purposes of precluding applicability of 401 KAR 51:017 and to satisfy Section D (4), a twelve-month rolling sum of nitrogen oxides emissions (TMNE) shall be kept for these units for use in tracking NO_x due to combustion, i.e.

$$TMNE = \sum_{m=1}^{12} NO_{XmNG} + \sum_{m=1}^{12} NO_{XmDO}$$

Where TMNE = Summation of NO_x emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

NO_{XmNG} = NO_x emitted for the month due to natural gas use

NO_{XmDO} = NO_x emitted for the month due to distillate oil use

NO_x emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Record Keeping Requirements (Continued):**

- C. For the purposes of precluding applicability of 401 KAR 59:225 and to satisfy Section D (5), a twelve-month rolling sum of volatile organic compound emissions (TMVE) shall be kept for these units for use in tracking VOC due to combustion, i.e.

$$TMVE = \sum_{m=1}^{12} VOC_{mNG} + \sum_{m=1}^{12} VOC_{mDO}$$

Where TMVE = Summation of VOC emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

VOC_{mNG} = VOC emitted for the month due to natural gas use

VOC_{mDO} = VOC emitted for the month due to distillate oil use

VOC emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

- D. Records documenting the results of each opacity reading by EPA Reference Method 9 shall be maintained.
- E. Records documenting the results of any required inspection and repair, as a result of a recorded opacity over 20% shall be maintained.

6. Specific Reporting Requirements:

- A. If distillate oil is burned in the unit, the permittee shall submit semiannual reports including the fuel supplier certification as required by 40 CFR 60.48c(f)(1), Subpart Dc and a certified statement signed by the owner or operator of the affected facility that the records of the fuel supplier certifications submitted represent the distillate oil combusted during that six month period.
- B. See Section F (5) and F (6).

7. Specific Control Equipment Operating Conditions: None**8. Alternate Operating Scenarios: None**

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units CD04 (SB1) and CD05 (SB2): Two Natural Gas/Oil Fired Indirect Heat Exchangers

Description:

Primary fuel:	Natural Gas
Secondary fuel:	Distillate Oil
Maximum Continuous Rating (fuel input):	37.3 MMBTU/hr, each
Construction Commenced:	TBD

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, New Indirect Heat Exchangers applicable to an emission unit with a capacity less than 250 MMBTU per hour and commenced on or after April 9, 1972

Regulation 401 KAR 60:005, incorporating by reference Regulation 40 CFR 60, Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units, for units less than or equal to 100 MMBTU/hour but greater than or equal to 10 MMBTU/hour commenced after June 9, 1989.

1. **Operating Limitations:** The heat input shall not exceed 37.3 MMBTU/hr each. The maximum total annual (consecutive twelve (12) month) distillate oil consumption shall not exceed 238,194 gallons/year for each unit to preclude the applicability of 401 KAR 51:017.

2. **Emission Limitations:**

A. Pursuant to Regulation 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.28 lb/MMBTU based on a three-hour-average. Compliance with the allowable particulate emission limitation while burning distillate oil may be demonstrated by calculating emissions using the following formula:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (Heating value of the distillate oil in MMBTU /10³ gal)].

B. Pursuant to Regulation 401 KAR 59:015, Section 4(2), and Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60.43c(c), Subpart Dc, visible emissions shall not exceed 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations (Continued):**

- C. Pursuant to Regulation 401 KAR 59:015, Section 5(1)(c), and Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60.42c(d), Subpart Dc, sulfur dioxide emissions shall not exceed 0.50 lb/MMBTU, or, as an alternative, the fuel shall not contain greater than 0.5 weight percent sulfur. Compliance with the allowable sulfur dioxide emission limitation while burning distillate oil may be demonstrated based on fuel supplier certification of sulfur content. Sulfur dioxide emissions while burning distillate oil may be determined by using the following formula:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the distillate oil in MMBTU /10³ gal)].

- D. The permittee may assure compliance with the PM, SO₂, and opacity standards while burning natural gas by the following compliance demonstration methods:

Compliance Demonstration Method:

The permittee may assure compliance with the particulate standard by calculating particulate emissions using the following formula.

When combusting natural gas:

Particulate emission = [(The most recent finalized AP-42 particulate matter emission factor) divided by (the heating value of the natural gas used in MMBTU /10⁶ scf)].

Compliance Demonstration Method:

The permittee may assure compliance with the sulfur dioxide standard by calculating sulfur dioxide emissions using the following formula.

When combusting natural gas:

Sulfur dioxide emissions = [(The most recent finalized AP-42 sulfur dioxide emission factor) divided by (Heating value of the natural gas used in MMBTU /10⁶ scf)].

Compliance Demonstration Method:

Each unit is considered to be in compliance with the opacity standards while burning natural gas.

- E. Source wide CO emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (A).
- F. Source wide NO_x emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (B).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations (Continued):

G. Source wide VOC emissions shall be less than or equal to 90.0 tons during any twelve (12) consecutive month period.

See **5. Specific Record Keeping Requirements** and Section D, Compliance Demonstration Method (C).

H. 401 KAR 63:020: See Section D, Compliance Demonstration Method (D), for emission limitations and compliance requirements.

3. Testing Requirements:

A. The permittee shall determine the opacity of emissions when combusting distillate oil from the stack using U.S. EPA Reference Method 9 annually, or more frequently if requested by the Division. An initial performance test as required by 40 CFR 60.45c(a)(8), Subpart Dc, shall be completed.

B. The permittee shall conduct a performance test for particulate emissions when combusting distillate oil if such usage exceeds sixty (60) days within any consecutive twelve (12) month period.

C. The permittee shall conduct an initial performance test for carbon monoxide emissions when combusting natural gas. This testing can be waived upon submittal of the manufacturer's guaranteed emission factors (for the actual installed equipment) within forty-five (45) days of the equipment installation.

D. See Section F (11), G (a)(17) and Section G (d).

4. Specific Monitoring Requirements:

A. The permittee shall monitor natural gas and distillate oil usage on a monthly basis.

B. The permittee shall monitor the heating value and sulfur content of the distillate oil combusted. The permittee may use the certification from the fuel supplier to satisfy this requirement. The fuel supplier certification shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil specified in the 40 CFR 60.41c.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- A. For the purposes of precluding applicability of 401 KAR 51:017 and to satisfy Section D (3), a twelve-month rolling sum of carbon monoxide emissions (TMCE) shall be kept for these units for use in tracking CO due to combustion, i.e.

$$TMCE = \sum_{m=1}^{12} CO_{mNG} + \sum_{m=1}^{12} CO_{mDO}$$

Where TMCE = Summation of CO emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

CO_{mNG} = CO emitted for the month due to natural gas use

CO_{mDO} = CO emitted for the month due to distillate oil use

CO emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

- B. For the purposes of precluding applicability of 401 KAR 51:017 and to satisfy Section D (4), a twelve-month rolling sum of nitrogen oxides emissions (TMNE) shall be kept for these units for use in tracking NO_x due to combustion, i.e.

$$TMNE = \sum_{m=1}^{12} NO_{XmNG} + \sum_{m=1}^{12} NO_{XmDO}$$

Where TMNE = Summation of NO_x emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

NO_{XmNG} = NO_x emitted for the month due to natural gas use

NO_{XmDO} = NO_x emitted for the month due to distillate oil use

NO_x emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Record Keeping Requirements (Continued):**

- C. For the purposes of precluding applicability of 401 KAR 59:225 and to satisfy Section D (5), a twelve-month rolling sum of volatile organic compound emissions (TMVE) shall be kept for these units for use in tracking VOC due to combustion, i.e.

$$TMVE = \sum_{m=1}^{12} VOC_{mNG} + \sum_{m=1}^{12} VOC_{mDO}$$

Where TMVE = Summation of VOC emissions for the current month and previous 11 months for this emission point in Tons

m = the month, i.e.

m=1=current month,

m=2=previous month,

m=3=month before previous month, etc.

VOC_{mNG} = VOC emitted for the month due to natural gas use

VOC_{mDO} = VOC emitted for the month due to distillate oil use

VOC emissions from this source shall be calculated using the emission factor determined through a Division approved performance test or by using the manufacturer's guaranteed emission factor.

- D. Records documenting the results of each opacity reading by EPA Reference Method 9 shall be maintained.
- E. Records documenting the results of any required inspection and repair, as a result of a recorded opacity over 20% shall be maintained.

6. Specific Reporting Requirements:

- A. If distillate oil is burned in the unit, the permittee shall submit semiannual reports including the fuel supplier certification as required by 40 CFR 60.48c(f)(1), Subpart Dc and a certified statement signed by the owner or operator of the affected facility that the records of the fuel supplier certifications submitted represent the distillate oil combusted during that six month period.
- B. See Section F (5) and F (6).

7. Specific Control Equipment Operating Conditions: None**8. Alternate Operating Scenarios: None**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emission Units CD06 – CD09, Four Distillate Oil Fired Emergency Generators**

<u>Description:</u>	(EG1- EG4)
Fuel input:	29.5 mmBTU/hr, each
Power output:	4,640 hp, each
Construction Commenced:	TBD
Control Equipment:	Selective Catalytic Reduction
Control Efficiency:	70% for CO, 90% for NO _x , 70% for PM and 70% for VOC

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

The total operating hours for each of the four Main Emergency IC engines (EG1, EG2, EG3 and EG4) shall be limited to a maximum of 500 hours per consecutive 12-month period.

2. Emission Limitations:

A. Source wide CO emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.

See Section D, Compliance Demonstration Method (A).

B. Source wide NO_x emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.

See Section D, Compliance Demonstration Method (B).

C. Source wide VOC emissions shall be less than or equal to 90.0 tons during any twelve (12) consecutive month period.

See Section D, Compliance Demonstration Method (C).

D. 401 KAR 63:020: See Section D, Compliance Demonstration Method (D), for emission limitations and compliance requirements.

3. Testing Requirements:

A. The permittee shall conduct an initial performance test for carbon monoxide emissions.

B. The permittee shall conduct an initial performance test for nitrogen oxides emissions.

C. The permittee shall conduct an initial performance test for particulate matter emissions.

D. The permittee shall conduct an initial performance test for volatile organic compound emissions.

E. This testing can be waived upon submittal of the manufacturer's guaranteed emission factors (for the actual installed equipment) within forty-five (45) days of the equipment installation.

F. See Section F (11), G (a)(17) and Section G (d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- A. The Permittee shall monitor the amount of distillate oil consumed by each Generator on a monthly basis.
- B. The Permittee shall monitor the hours of operation of each Generator on a monthly basis.

5. Specific Record Keeping Requirements:

- A. The Permittee shall compile and maintain records of the amount of distillate oil consumed by each generator on a monthly basis.
- B. The Permittee shall maintain records of the hours of operation of each Generator on a monthly basis.
- C. The Permittee shall maintain records of the total hours of operation for each Generator on a consecutive twelve-(12) month total.
- D. The permittee shall maintain records of the total amount of distillate oil consumed by each Generator on a consecutive twelve-(12) month total.
- E. See Section D (3), D (4) and D (5).

6. Specific Reporting Requirements: See Section F (5) and F (6).

7. Specific Control Equipment Operating Conditions: None

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units CD10 and CD11, Two Distillate Oil Fired Emergency Generators

Description: (EG5- EG6)
Fuel input: 6.7 mmBTU/hr, each
Power output: 1,055 hp, each
Construction Commenced: TBD

APPLICABLE REGULATIONS:

None

1. Operating Limitations:

Operation shall be limited to no more than 500 hours per twelve (12) consecutive period for each Generator.

2. Emission Limitations:

- A. Source wide CO emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (A).
- B. Source wide NO_x emissions shall be less than or equal to 225.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (B).
- C. Source wide VOC emissions shall be less than or equal to 90.0 tons during any twelve (12) consecutive month period.
See Section D, Compliance Demonstration Method (C).
- D. 401 KAR 63:020: See Section D, Compliance Demonstration Method (D), for emission limitations and compliance requirements.

3. Testing Requirements:

- A. The permittee shall conduct an initial performance test for carbon monoxide emissions.
- B. The permittee shall conduct an initial performance test for nitrogen oxides emissions.
- C. The permittee shall conduct an initial performance test for particulate matter emissions.
- D. The permittee shall conduct an initial performance test for volatile organic compound emissions.
- E. This testing can be waived upon submittal of the manufacturer's guaranteed emission factors (for the actual installed equipment) within forty-five (45) days of the equipment installation.
- F. See Section F (11), G (a)(17) and Section G (d).

4. Specific Monitoring Requirements:

- A. The Permittee shall monitor the amount of distillate oil consumed by each Generator on a monthly basis.
- B. The Permittee shall monitor the hours of operation of each Generator on a monthly basis.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

- A. The Permittee shall compile and maintain records of the amount of distillate oil consumed by each generator on a monthly basis.
- B. The Permittee shall maintain records of the hours of operation of each Generator on a monthly basis.
- C. The Permittee shall maintain records of the total hours of operation for each Generator on a consecutive twelve (12) month total.
- D. The permittee shall maintain records of the total amount of distillate oil consumed by each Generator on a consecutive twelve (12) month total.
- E. See Section D (3), D (4) and D (5).

6. Specific Reporting Requirements: See Section F(5) and F (6).

7. Specific Control Equipment Operating Conditions: None

8. Alternate Operating Scenarios: None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. IC Engine (211 HP) for EG7	None
2. Two (2) Agent Hydrolysate 245,000 Gallon Storage Tanks equipped with carbon adsorber system	None
3. Agent Hydrolysate 60,000 Gallons Storage Tank equipped with carbon adsorber system	None
4. Four (4) Energetics Hydrolysate 475,000 Gallon Storage Tanks equipped with carbon adsorber system	None
5. Aluminum Precipitation and Filtration Building HVAC Filters System Exhaust	None
6. Supercritical Water Oxidation Process Building (SPB) HVAC Filter System Exhaust	401 KAR 59:010 § 3(1) & 3(2)
7. MPT Residue Cool Down Conveyor	None
8. Laboratory HVAC Filter Stack	None
9. HCl (37 %) 8,500 Gallon and 1,125 Gallon Storage Tanks	None
10. Isopropyl Alcohol (IPA) 39,500 Gallon Storage Tank	None
11. Sulfuric Acid 4,500 Gallon Storage Tank	None
12. Two (2) Distillate Oil 24,620 Gallon Storage Tanks	None
13. Two (2) Sodium Hydroxide (50 %) 50,000 Gallon Storage Tanks	None

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

<u>Description</u>	<u>Generally Applicable Regulation</u>
14. Sodium Hydroxide (18 %) 6,000 Gallon Storage Tank	None
15. Sodium Hydroxide (1 %) 3,100 Gallon Storage Tank	None
16. Sodium Hypochlorite/Sodium Hydroxide (1 %) 10,500 Gallon Storage Tank	None
17. Personnel Maintenance Building HVAC Filter Stack Clinic Decon Room	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, § 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Source wide emission limitations for CO, HAP, NO_x and VOC shall apply to the specified emission sources listed in Section B of this permit and the specified emission sources that are listed in Sections B and C of the Blue Grass Army Depot Title V Permit, permit number V-05-020. CO, HAP, NO_x and VOC emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. CO emissions shall not exceed 225 tons during any consecutive twelve (12) month period. Monthly records to demonstrate compliance with this limitation shall be maintained and total CO emissions shall be reported on a semi-annual basis. CO emissions shall be calculated and recorded on a *monthly* basis. These records shall be summarized in tons per month of CO emissions; subsequently, tons of CO emissions per rolling 12-month period shall be recorded. In addition, these records shall demonstrate compliance with the CO emission limitations listed herein for the synthetic minor limitations. These records shall be maintained on site for a period of five years from the date the data was collected and shall be provided to the Division upon request.
4. NO_x emissions shall not exceed 225 tons during any consecutive twelve (12) month period. Monthly records to demonstrate compliance with this limitation shall be maintained and total NO_x emissions shall be reported on a semi-annual basis. NO_x emissions shall be calculated and recorded on a *monthly* basis. These records shall be summarized in tons per month of NO_x emissions; subsequently, tons of NO_x emissions per rolling 12-month period shall be recorded. In addition, these records shall demonstrate compliance with the NO_x emission limitations listed herein for the synthetic minor limitations. These records shall be maintained on site for a period of five years from the date the data was collected and shall be provided to the Division upon request.
5. VOC emissions shall not exceed 90 tons during any consecutive twelve (12) month period. Monthly records to demonstrate compliance with this limitation shall be maintained and total VOC emissions shall be reported on a semi-annual basis. VOC emissions shall be calculated and recorded on a *monthly* basis. These records shall be summarized in tons per month of VOC emissions; subsequently, tons of VOC emissions per rolling 12-month period shall be recorded. In addition, these records shall demonstrate compliance with the VOC emission limitations listed herein for the conditional major limitations. These records shall be maintained on site for a period of five years from the date the data was collected and shall be provided to the Division upon request.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

6. The emissions of any individual Hazardous Air Pollutant (HAP) shall not exceed nine (9) tons during any consecutive twelve (12) month period. The emissions of combined HAP shall not exceed twenty-two and one-half (22.5) tons per year. Monthly records, which demonstrate compliance with this limitation, shall be maintained and total HAP emissions shall be reported on a semi-annual basis. HAP emissions shall be calculated and recorded on a *monthly* basis. These records shall be summarized in tons per month HAP emissions; subsequently, tons of HAP emissions per rolling 12-month period shall be recorded. In addition, these records shall demonstrate compliance with HAP emission limitations listed herein for the conditional major limitations. These records, as well as purchase orders and invoices for all HAP containing materials, shall be maintained on site for a period of five years from the date the data was collected and shall be provided to the Division upon request.
7. As required by 401 KAR 63:020, § 3, no owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the Cabinet.
8. Where there is weekly monitoring and record keeping requirements in this permit, the monitoring and record keeping shall be required if the emission unit operated any day or portion of a day during the week. Where there is daily monitoring and record keeping requirements in this permit, the monitoring and record keeping shall be required if the emission unit operated any portion of the day.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**Compliance Demonstration Method:****(A) For CO:**

CO emitted from MDB operations:

(1) CO emitted (lbs/month) = [(0.43 lb/ton) or most up to date emission factor determined through testing or engineering evaluation] x (tons material 1 processed/month)

CO emitted from natural gas combustion (PB1 - PB2, SB1 - SB2):

(2) CO emitted (lbs/month) = (84.0 lb/MMSCF) x (MMSCF natural gas burned/month)

CO emitted from distillate oil combustion (PB1 - PB2, SB1 - SB2):

(3) CO emitted (lbs/month) = (5.0 lb/10³) x (10³ gallons of distillate oil burned/month)

CO emitted from distillate oil combustion (EG1 – EG4):

(4) CO emitted (lbs/month) = (21.98 lb/10³) x (10³ gallons of distillate oil burned/month)

CO emitted from distillate oil combustion (EG5 – EG6):

(5) CO emitted (lbs/month) = (116.48 lb/10³) x (10³ gallons of distillate oil burned/month)

Source-wide CO emissions = \sum [CO emissions from MDB operations] + \sum [CO emissions from natural gas combustion] + \sum [CO emissions from distillate oil combustion] + \sum [CO emissions from BGAD, as specified in Section D of Permit #V-05-020].

Compliance Demonstration Method:**(B) For NO_x:**

NO_x emitted from MDB operations:

(1) NO_x emitted (lbs/month) = [(0.006 lb/ton) or most up to date emission factor determined through testing or engineering evaluation] x (tons material 1 processed/month)

NO_x emitted from natural gas combustion (PB1 - PB2, SB1 - SB2):

(2) NO_x emitted (lbs/month) = (100.0 lb/MMSCF) x (MMSCF natural gas burned/month)

NO_x emitted from distillate oil combustion (PB1 - PB2, SB1 - SB2):

(3) NO_x emitted (lbs/month) = (20.0 lb/10³) x (10³ gallons of distillate oil burned/month)

NO_x emitted from distillate oil combustion (EG1 – EG4):

(4) NO_x emitted (lbs/month) = (618.53 lb/10³) x (10³ gallons of distillate oil burned/month)

1 Material is total tons of rockets, projectiles, dunnage and reagent processed per month.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**Compliance Demonstration Method:****(B) For NO_x (Continued):**

NO_x emitted from distillate oil combustion (EG5 – EG6):

$$(5) \text{ NO}_x \text{ emitted (lbs/month)} = (438.50 \text{ lb}/10^3) \times (10^3 \text{ gallons of distillate oil burned/month})$$

$$\begin{aligned} \text{Source-wide NO}_x \text{ emissions} = & \sum [\text{NO}_x \text{ emissions from MDB operations}] + \sum [\text{NO}_x \\ & \text{emissions from natural gas combustion}] + \sum [\text{NO}_x \text{ emissions from distillate oil} \\ & \text{combustion}] + \sum [\text{NO}_x \text{ emissions from BGAD as specified in Section D of Permit \# V-05-} \\ & \text{020}] . \end{aligned}$$

Compliance Demonstration Method:**(C) For VOC:**

VOC emitted from MDB operations:

$$(1) \text{ VOC emitted (lbs/month)} = [(0.77 \text{ lb/ton}) \text{ or most up to date emission factor determined through testing or engineering evaluation}] \times (\text{tons material processed/month})$$

VOC emitted from natural gas combustion (PB1 - PB2, SB1 - SB2):

$$(2) \text{ VOC emitted (lbs/month)} = (5.5 \text{ lb/MMSCF}) \times (\text{MMSCF natural gas burned/month})$$

VOC emitted from distillate oil combustion (PB1 - PB2, SB1 - SB2):

$$(3) \text{ VOC emitted (lbs/month)} = (0.20 \text{ lb}/10^3) \times (10^3 \text{ gallons of distillate oil burned/month})$$

VOC emitted from distillate oil combustion (EG1 – EG4):

$$(4) \text{ VOC emitted (lbs/month)} = (6.67 \text{ lb}/10^3) \times (10^3 \text{ gallons of distillate oil burned/month})$$

VOC emitted from distillate oil combustion (EG5 – EG6):

$$(5) \text{ VOC emitted (lbs/month)} = (11.22 \text{ lb}/10^3) \times (10^3 \text{ gallons of distillate oil burned/month})$$

$$\begin{aligned} \text{Source-wide VOC emissions} = & \sum [\text{VOC emissions from MDB operations}] + \sum [\text{VOC} \\ & \text{emissions from natural gas combustion}] + \sum [\text{VOC emissions from distillate oil} \\ & \text{combustion}] + \sum [\text{VOC emissions from BGAD as specified in Section D of Permit \# V-} \\ & \text{05-020}]. \end{aligned}$$

2 Emission factor for Total Organic Compounds is assumed to equal Volatile Organic Compounds emission factor.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Compliance Demonstration Method:

(D) Potentially hazardous matter or toxic substances

An air dispersion model protocol for potentially hazardous matter and toxic substance emissions (air toxics) shall be submitted no later than twelve (12) months prior to the beginning of demilitarization operations. Upon approval of the protocol, the source shall model the air toxics emissions as indicated in the protocol. The source shall submit the results of the air modeling to the Division, whereupon the emissions of toxics shall be evaluated to determine the compliance status with 401 KAR 63:020.

The source shall establish the emission rates of potentially hazardous matter and toxic substances from MDB HVAC filters. The method(s) by which these emissions are to be determined shall be specified in the Operating Plan as specified in Section I.

If the source alters process rates, material formulations, or any other factor that will result in an increase of emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:020, along with modeling to show that the facility will remain in compliance with 401 KAR 63:020.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. Specific Control Equipment Group Requirements: See Section I, Compliance Schedule.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and the Permittee shall submit written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**SECTION F - MONITORING, RECORDKEEPING, AND REPORTING
REQUIREMENTS (CONTINUED)**

Division for Air Quality
Frankfort Regional Office
643 Teton Trail, Suite B
Frankfort, KY 40601-1758

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)**(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements**

CD01 – Munitions Demilitarization Building (MDB)
CD02 (PB1) – Natural Gas/Oil Fired Indirect Heat Exchanger
CD03 (PB2) – Natural Gas/Oil Fired Indirect Heat Exchanger
CD04 (SB1) – Natural Gas/Oil Fired Indirect Heat Exchanger
CD05 (SB2) – Natural Gas/Oil Fired Indirect Heat Exchanger
CD06 – Emergency Generator #1
CD07 – Emergency Generator #2
CD08 – Emergency Generator #3
CD09 – Emergency Generator #4
CD10 – Emergency Generator #5
CD11 – Emergency Generator #6

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units CD01, CD02, CD03, CD04, CD05, CD06, CD07, CD08, CD09, CD10 and CD11 in accordance with the terms and conditions of this permit.

1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.
 6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
 7. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- (e) Acid Rain Program Requirements
1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD, 20703-1515

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

The permittee shall submit an Operating Plan not less than twelve (12) months prior to beginning demilitarization operations. The Operating Plan shall specify the method(s) by which emission rates of potentially hazardous matter and toxic substance from MDB HVAC filters shall be established. At a minimum the Operating Plan shall specify the testing, monitoring, record keeping and reporting requirements sufficient to demonstrate compliance with the operating limitations specified in this permit and all Division of Waste Management Requirements.